

In Class March 23, 2015

Algebra 2

Exponents Day 30: Introduction to Exponential Functions

Name: _____

Name:

Date:

Evaluating Powers and Percents

Directions: Evaluate each expression.

$$2^4$$

$$2^{-4}$$

$$3(2)^4$$

$$3(2)^{-4}$$

$$\frac{1}{2}(2)^5$$

$$\frac{2}{3}(3)^2$$

$$\frac{1}{4}(5)^{-2}$$

$$-(3)^{-2}$$

$$\left(\frac{3}{5}\right)^{-2}$$

$$2\left(\frac{4}{7}\right)^{-1}$$

$$\left(\frac{27}{125}\right)^{2/3}$$

$$\frac{2}{7}\left(\frac{2}{3}\right)^{-3}$$

Directions: Use your Percents FAQ if you need help with these percent problems.

1. You had \$400 in your checking account. After paying your bills, the amount of money decreased by 65%. How much money is in your account now?
2. Last month, the average gas price was \$3 per gallon. Now, the average price is \$4.50 per gallon. What percent increase is this?

The Lottery Problem Graph

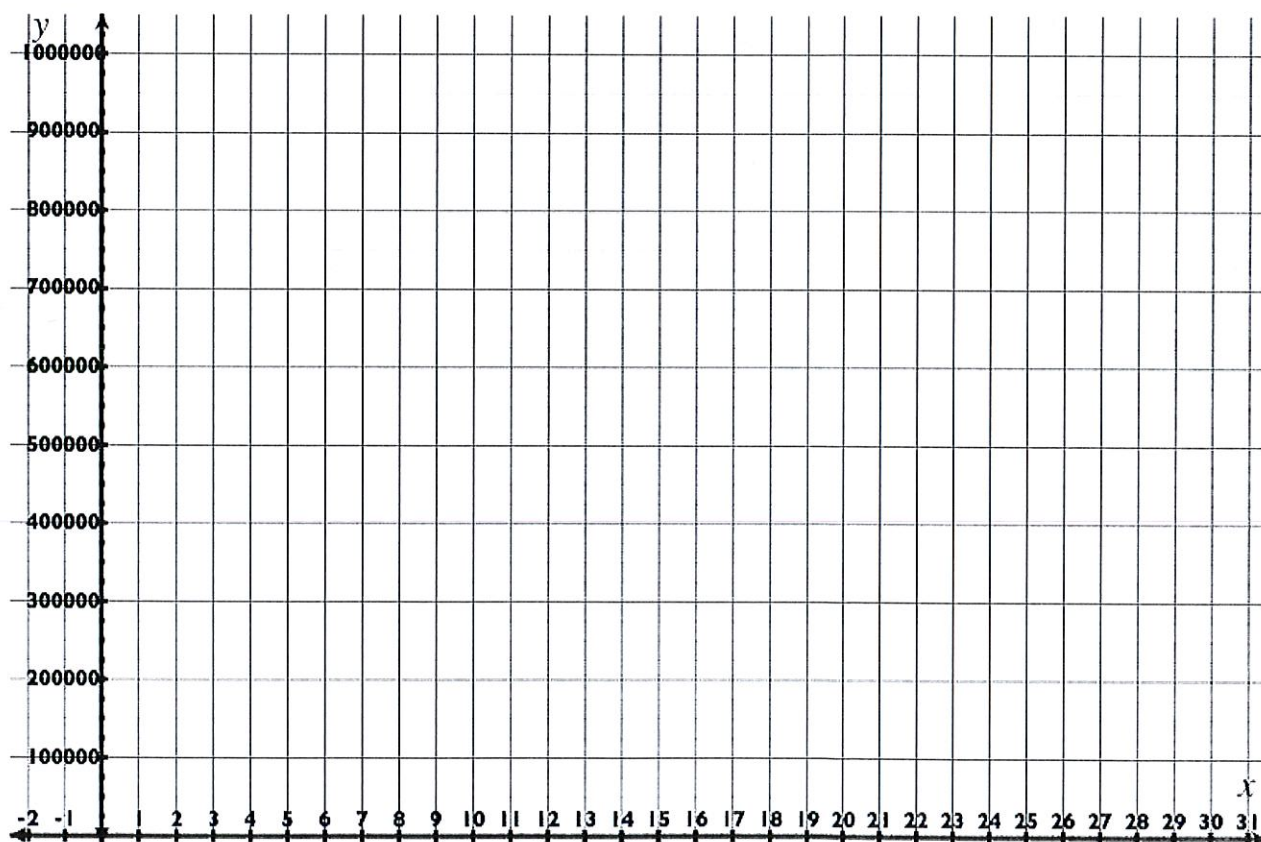
Directions:

Make a graph of each payout option. Let x = number of days and let y = amount of money.

Option 1: Get a one-time payment of \$750,000 right away.

Option 2: Earn \$25,000 each day for a month.

Option 3: Start with \$1 and have your money doubled each day for a month.



Questions:

Which option is the best? Is it always the best?

Functions:

Option 1:

Option 2:

Option 3:

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Data table for Option 3:

Day (x)	Amount of Money (y)	Exponential Form
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		

...

x		
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